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Chair: Mr. Lloyd Longfield



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• (1105)
[English]

The Chair (Mr. Lloyd Longfield (Guelph, Lib.)): I call the meeting to order. This is meeting number 81 of the House of Commons Standing Committee on Science and Research.

Today's meeting is taking place in a hybrid format pursuant to the Standing Orders. All members are in the room, but we do have some witnesses on Zoom.

For those on Zoom, you can speak in the official language of your choice. You can choose floor, English or French at the bottom of your screen. If we do lose interpretation or sound quality, please let me know immediately and we will suspend while we restore interpretation.

For members participating in person, I'll recognize you before you speak and your mic will be controlled, as usual, by the proceedings and verification officer.

In the room we have a great sound system, but we need to keep our earphones away from the microphone so that we don't create feedback events. We can make sure we're mindful of that, protecting the safety of our interpreters as well as those in the room with earphones in.

All comments should come through the chair. Please speak slowly and clearly, and when you are not speaking your mic should be on mute.

We have a speaking list. The clerk and I will do the best we can to maintain the order of speakers.

Pursuant to Standing Order 108(3)(i) and the motions adopted by the committee on Tuesday, January 30, and Thursday, February 15, 2024, the committee resumes its study on the distribution of federal government funding among Canada's post-secondary institutions.

It's now my pleasure to welcome, in the room, from the Canadian Association for Graduate Studies, Philippe-Edwin Bélanger, president, and Dr. Fahim Quadir, vice-president. We have, virtually, from the Canadian Association of University Teachers, Dr. Robin Whitaker. We also have Dr. Eric Weissman from the Post-secondary Student Homeless/Housing Research Network on video conference.

You'll each have five minutes for your remarks and then we'll go to the questioning rounds.

Starting us off, we will hear from the Canadian Association of Graduate Studies.

Mr. Philippe-Edwin Bélanger (President, Canadian Association for Graduate Studies): Thank you and good morning.

As you know, my name is Philippe-Edwin Bélanger. I am the director of graduate studies and student success at the Institut national de la recherche scientifique in Quebec City.

Mr. Fahim Quadir (Vice-President, Canadian Association for Graduate Studies): Good morning.

My name is Fahim Quadir. I'm the vice-provost and the dean of the school of graduate studies and post-doctoral affairs at Queen's University.

Mr. Philippe-Edwin Bélanger: We are pleased to address the committee today in our capacity as president and vice-president of the Canadian Association for Graduate Studies, CAGS, Canada's national association for the advancement of excellence in graduate education, research and scholarship. CAGS remains firm in its support for increasing the size and number of graduate student and post-doctoral scholarships provided by the three federal granting agencies.

Mr. Fahim Quadir: We strongly believe that the current models for distributing federal research funding in Canada are outdated and ineffective in achieving their core mission of supporting the next generation of researchers. In particular, the current concentration of Canadian research funding among a few universities has created an inequitable and, at times, inaccessible research funding ecosystem in this country. This is particularly true for rural, small and mid-sized universities. While the current framework rewards institutions with robust faculty-level research agendas, it does not always adequately account for the size and complexity of an institution's graduate student population. Furthermore, the current framework does not acknowledge that distinctive centres of excellence exist in all institutions, both large and small, urban and rural.

[Translation]

Mr. Philippe-Edwin Bélanger: The current funding model also poses major challenges for small and medium-sized universities that may not have the administrative staff and expertise required to apply for and obtain federal funding under demanding and extremely competitive competitions.

When the time comes for the federal government to plan its research investments, we think it would be a good opportunity to reconsider and redefine the federal funding distribution model to make it more institutionally and regionally balanced, yet still based on academic merit.

[*English*]

Mr. Fahim Quadir: To effectively support graduate student research, as well as to foster a culture of innovation in Canada, CAGS proposes a model for distributing funds based upon the size of an institution's graduate student population.

This new model would be supported by three fundamental principles and/or assumptions: All universities in Canada, regardless of their size and location, have centres of research excellence and exceptional graduate students; equity in graduate education and scholarship is fundamentally enhanced when graduate students from different types of institutions and disciplines have access to federal funding; and academic excellence and merit of the students should be the primary driver in distributing federal research funding.

[*Translation*]

Mr. Philippe-Edwin Bélanger: We're going to make a few proposals.

In our view, the changes we are proposing would improve the graduate studies scholarship distribution process, while ensuring a more equitable distribution of federal funding in support of graduate students across the entire Canadian university ecosystem and in all regions of Canada.

[*English*]

Mr. Fahim Quadir: We recommend two specific policy changes.

The first is establishing a new framework for research funding and distribution quotas determined by the number of graduate students enrolled in research-based programs at each institution. This would shift the current allocation of funding to a model that is balanced, based upon academic merit of the students and aligned with the proportion of researchers in each of the three tri-agencies. This would also expand access to funding opportunities for all universities regardless of their size, location and profile.

The second is creating a mobility scholarship program, which CAGS is proposing. It should provide funding to graduate students and post-doctoral scholars to pursue part of their research program and their studies outside of their own institution. It should be similar to the European Commission's Erasmus mundus program. CAGS would like the tri-agencies to evaluate the introduction of a Canadian Erasmus program to encourage interprovincial graduate student and post-doctoral student mobility.

• (1110)

[*Translation*]

Mr. Philippe-Edwin Bélanger: In closing, the Canadian Association for Graduate Studies and many other stakeholders in higher education in Canada believe that a more equitable model for distributing federal research funding would better serve the interests of our universities, their students, Canada's research community and Canadian society at large.

Thank you for your attention. We look forward to your questions.

[*English*]

The Chair: Thank you for your excellent presentation.

Now we move to Dr. Eric Weissman from the Post-secondary Student Homeless/Housing Research Network.

Dr. Weissman, you have five minutes, please.

Dr. Eric Weissman (Associate Professor, Department of Social Science, University of New Brunswick, and Member, Post-secondary Student Homeless/Housing Research Network): Thank you.

Greetings. I want to thank the committee for inviting me as a representative of the Post-secondary Student Homeless/Housing Research Network. I would also like to add in response to my colleagues that I actually was a CAGS recipient of the Distinguished Dissertation Award in 2014, so thank you.

I'm an associate professor at UNB in Saint John. I'm known as a lived experience scholar. I have been in recovery from addictions and episodic homelessness for about 28 years. Most of my work focuses on these areas, and on finding ways to incorporate lived experience in qualitative research, and also seeing students' or other potential researchers' life courses as evidence of skills and qualifications deserving of recognition and funding. I will return to this later.

Since 2016 we have been studying post-secondary student homelessness. The work began as surveys at sites across Canada. In 2021, our network, anchored at UNB in Saint John, expanded to eight sites and was funded by Making the Shift Inc., part of the Networks of Centres of Excellence of Canada. The research asks what students, faculty, administrators and researchers think the role of institutions and government should be in assisting them with housing and other costs.

One might ask how research on student housing bears on innovations in the funding of research in Canada. The housing piece is a key ingredient for student success at all levels of the post-secondary experience. I agree with the comments made by Dr. Vaugeois on March 21 and many others about what I would call implicit biases toward funding previously funded scholars and institutions. They do lead to overt disparities, great frustration and demoralization among researchers, especially in smaller settings. I am going to address how rethinking housing supports will support researchers and, hence, research.

Five per cent of Canada's 2.2 million post-secondary students live in some form of homelessness. That's close to 110,000 students every day. Sixty-four per cent of them allocate more than 30% of their income to housing. Fifty per cent suffer mental health issues, and at some of our smaller sites in our research close to 70% of students would leave school if faced with that hardship and over 30% had done so in the past.

Equity-denied groups were overrepresented in the data. Close to 80% of post-secondary students are youths 17 to 29. The other 20% or so are older, many returning students in graduate programs seeking to reinvent themselves through research practices towards purposeful lives in a changing economy. Many have families and housing pressures and many live in housing precarity through this reinvention.

Regional colleges and polytechnics may be smaller than large urban universities, but they play instrumental roles in maintaining workforces and contributing to practical research. So when we're funding research, or tuition, we are funding student life courses that are more complicated than traditionally thought of, more than the research, more than the ideas. The research is intertwined in these complex life courses. It's time to consider what more the government can do to support this important piece, the housing piece.

Supporting student housing will directly lead to the well-being of students, encourage long-term research tracks, and increase graduate and post-graduate attendance. An overwhelming majority of students and other respondents in our work feel it is incumbent on the federal government to help with this urgent part of their education, and they balk at applying to graduate programs because of this cost factor.

On two of my research projects this year I have had gifted students who found the pressure of maintaining their housing and their schooling too difficult and in the midst of the research had to take leave from their research positions. I believe in anecdotal evidence. My colleagues will tell you how common housing-related precarities are among our research assistants and the effect it has on our research. Be it AI or the cost of living, post-secondary is facing several existential threats. The future of research in Canada is not simply about funding research, but about funding the post-secondary experience better to guarantee basic needs and encourage potential researchers to stay in school. Our respondents agree that tempering the housing piece itself will yield long-term benefits to post-secondary and to Canadian research literacy in the future.

I have more that I would like to address perhaps in the question period. I would like to mention as well, based on my own experience, the support I got from Concordia University as a person with unconventional.... I left school when I was in the middle of a Ph.D. in the late 1980s and had a massive gap in my experience. I finally got into a program where they valued lived experience at Concordia and the results—CAGS is witness to this—were a really interesting form of research.

One of the things our respondents and our entire network believes in is that the government must get involved in figuring out ways to fund and to value non-academic and lived experiences similarly to the ways we value track records.

Thank you very much.

• (1115)

The Chair: Thank you.

I know more could be said, but time is not on our side on that. Hopefully, during questions we can explore some of those ideas.

Now we will move over to Dr. Whitaker, from the Canadian Association of University Teachers, online, for five minutes, please.

Dr. Robin Whitaker (Vice-President, Canadian Association of University Teachers): Good afternoon. I join you from St. John's, Newfoundland, the ancestral homelands of the Beothuk and Mi'kmaq peoples. Thank you for undertaking this important study.

I'm vice-president of the Canadian Association of University Teachers, which represents 72,000 researchers, teachers, librarians and general staff at universities, colleges and polytechnics across the country. I'm also a professor at Memorial University, a comprehensive research university.

Federal support for research is critically important to current and future challenges. Over time we've seen changes to what the federal government funds, who it funds and on what basis. What that history tells us about how to distribute federal research funds to ensure the greatest benefits for Canadians can be summarized as follows: First, we need to ensure adequate support for basic research; second, programs must be inclusive of all disciplines and researchers; and third, the integrity and independence of research and funding decisions must be respected.

Fundamental science—or basic research—is the foundation of knowledge and innovation. It may not have specific applications built into its design, but history shows that most important discoveries are grounded in basic research driven by a quest for knowledge. Fundamental research has led to such unanticipated innovations as X-rays, nylon, Teflon, GPS technology, informatics, superconductivity, medical imaging and the mRNA vaccines. In short, applied and mission-driven research cannot thrive if fundamental research is struggling.

The advisory panel on federal support for fundamental science suggested, at minimum, a three-to-one distribution of investments in research between basic and applied. Some experts suggest the ratio should be closer to four to one if we're to reap the best rewards for society. As the most recent advisory panel on the federal research support system stated:

Fundamental, investigator-initiated research is the cornerstone of the research endeavour and must be supported at internationally competitive levels.

The panel called for, as a first step, an increase of at least 10% annually for five years to the councils' total base budgets for their core grant programming. This increase would benefit researchers across Canada at all kinds of institutions. If we look at the new frontiers fund for interdisciplinary research, the success rate—the number of applications to awards—is only 23%, for CIHR it's 18%, and for NSERC and SSHRC it's 58% and 54% respectively. Notably, applications are down at SSHRC by 33% in the last decade, contributing to a somewhat misleading 29% rise in success.

We know, from members, that many grant applications are approved on merit but go unfunded due to insufficient funds. Unfunded research means good ideas are left unexplored, ideas that would contribute to our collective knowledge and know-how. This unfunded research also means lost support and training for graduate students. Increases to scholarships, fellowships and research grants, which support two out of three grad students, will particularly benefit small and medium institutions with fewer resources to fund talent.

In addition to inadequate funding levels, system fairness would be enhanced by a better balanced allocation of funds across the tri-council. The majority of Canadian researchers work in the social sciences and humanities, yet SSHRC receives only about one-fifth of federal research funding. Fairness would be enhanced too by renewing funds for the dimensions program, launched by the tri-council in 2018 and overseen by NSERC. This program supported participating institutions in breaking down barriers. Its end in 2023 disproportionately impacted smaller institutions, which have fewer resources to advance equity, diversity and inclusion. Addressing administrative barriers, such as the common CV, will further assist in the fair distribution of funds, benefitting small and medium institutions with less internal support for researchers. CAUT also supports recommendations made by this committee's report, "Revitalizing Research and Scientific Publication in French in Canada", to improve access to resources that help make research and scientific knowledge in French more accessible.

Protecting the integrity of federally supported science and research is critical to our success. Federal government budgets have, at times, announced targeted research funding that bypassed the peer-review process. Rather than allowing the scientific community to determine what research merits funding, targeted initiatives required the granting agencies to direct funds toward industrial collaborations, specific disciplines or topics. However, as John Polanyi, Canada's most prominent Nobel laureate, warned, when governments or industry try to direct scientific inquiry, bypassing the rigorous peer-review system through which the scientific community protects its integrity, our scientific horizons shrink and our future is diminished. Attempts to forecast what research will be relevant have a dismal history and only lead to the inequitable channelling of funding into politically or commercially desired forms of applied research.

• (1120)

Certainly, applied research is important, but projects should be assessed on their merits, alongside basic or theoretical research through the established processes of peer review.

Thank you.

The Chair: You're right on time. Thanks, Dr. Whitaker, for your presentation.

I wanted to clear up a potential conflict of interest because next month I'll be starting a graduate program myself, doing a master's in leadership at the University of Guelph. As a senior citizen in Ontario, I don't pay for tuition, I don't receive funds from the university in any way, but I just wanted to let the committee know that this is going on.

Mr. Lobb, you have the floor for the first six-minute round, please.

Mr. Ben Lobb (Huron—Bruce, CPC): Thanks, Mr. Chair. Congratulations on your studies. That's great to see. Maybe the Prime Minister could use some of your wisdom when you've finished your studies.

The first question is for Mr. Quadir and Mr. Bélanger. You said the system is outdated. Would you like to elaborate more on that?

Mr. Fahim Quadir: I would be happy to do so.

I think the current system is structured around two assumptions. They're not directly related to students' funding support; they're related to the support faculty members would normally receive from tri-agencies. Based on the success rate of the faculty members, each university would receive quotas for doctoral students and master's students.

Then, I think it would be looked at from the student success perspective. For doctoral and master's students, the numbers would be determined by the success rates of their particular institutions. This allows particular institutions and a select group of students to access resources available to our graduate student community. In doing so, we often ignore the fact that good, solid graduate students are present in many different parts of the country. Because of the very fact that faculty success rates are not always the same at every single institution, their quotas are not likely to be exactly the same as in some cases.

This system really encourages particular locations and particular institutions to benefit more than all graduate students with academic excellence.

Mr. Ben Lobb: Maybe I look at this from an overly simplistic point of view, but a lot of students who graduate from my area go to the University of Guelph, and of course it's not a U15 school. I'm not putting words into people's mouths who have appeared here before, but they kind of alluded to the fact that well, you know, schools like the University of Toronto, which is a fine university, have such a great infrastructure that they should get more because they can handle the grants and the funding. However, I can't believe that to be true because if you met with the University of Guelph and said, "Hey, over the next 20 years, this is the funding you're going to receive. I want to see how you can demonstrate the ramp-up," I think they would do it easily.

If I look at the economy in Ontario, especially in southern Ontario, it's very dominated by agriculture. It would only enhance the agricultural success with new varieties, pest-resistant crops and everything else. I'd probably see a great advancement for humanity.

Do you have any thoughts on that?

• (1125)

Mr. Fahim Quadir: I can say two things.

You can look at it from a graduate student's perspective; there are numerous reasons why a graduate student would not really want to move from the place where they're currently situated, due to their caregiving responsibilities, family responsibilities and other financial responsibilities. Even if they have the excellence, they may not necessarily be able to move to another institution and be part of a vibrant culture of research.

How do you recognize those talents and continue to support their success stories? I think the current system, unfortunately, is not doing it. I think we have myths about locations and places. The system we are proposing would really allow us to make the whole system much more accessible for graduate students, regardless of their location, regardless of their affiliation with a particular institution.

We need to foster a culture of excellence.

[*Translation*]

Mr. Philippe-Edwin Bélanger: Yes, I agree. We underscored in our presentation that smaller universities are indeed experiencing specific difficulties, primarily because of their administrative capacity to respond to calls for projects and major competitions. The smaller universities do not have specialized personnel for every competition, in all programs or in all fields.

Indeed, when a major initiative is put in place, whether it be the Canada Foundation for Innovation or federal research councils, the smaller universities, which often have to conform to the same deadlines and the same rules, have a harder time meeting the challenge because they don't have the same organizational capacity.

In future, I think it would be a good idea if research funding took account of the specific situation facing smaller institutions, precisely so they can respond to competitions and calls for projects.

[*English*]

Mr. Ben Lobb: One other question is about these endowments that these major, mega-large universities have. The University of Toronto has over \$3 billion. McGill and Western have almost \$2

billion. That's a lot of money. Western is just down the road from where I grew up, but I'm not picking on them. It's just a fact.

The reality is that they have some of the biggest endowments, but they also receive some of the biggest dollars for research, so it's a multiplying effect for what they're doing. The smaller, more regional universities are left behind in endowments in some cases, and also in the research funding.

Do you have any thoughts on that? Should the universities be called on to use more of their endowments for this?

The Chair: We're over time, but if you have a yes or no, or if you'd like to answer—

Mr. Philippe-Edwin Bélanger: It's not a yes or no.

[*Translation*]

I would just say that—

[*English*]

The Chair: We're over time. If there is an answer, we'll have to bring it in writing or maybe in a future round.

Mr. Turnbull, go ahead for six minutes, please.

Mr. Ryan Turnbull (Whitby, Lib.): Thanks, Chair.

Thanks to all the witnesses for being here today.

Maybe I'll start by going back to your opening remarks, Mr. Quadir and Mr. Bélanger, which were quite good.

Maybe I misheard or I didn't understand completely, or perhaps you ran through it a bit too quickly for my attention this morning. Maybe I was too focused on the federal budget in anticipation of this afternoon.

Can you slow down and describe to me what you are specifically proposing?

I understood there were two policy changes. You're saying there's a need for a new framework, but I want to make sure I fully understand what you meant by that. I wasn't sure whether I completely captured it in my mind.

Could you maybe revisit that?

Mr. Fahim Quadir: I think there are two things we are proposing.

One is to change the current distribution model, which indeed rewards various specific institutions and various specific groups of students. We want it to be widely available to students studying in all universities.

The quota system is not going to be determined by the successes achieved by faculty-led research initiatives. Instead, it will be about student excellence, academic merit and excellence to drive the entire conversation of graduate fellowship.

Students studying in all universities in Canada would have equal opportunity to apply for these funds and be able to receive these funds to support their initiatives.

The second one—

• (1130)

Mr. Ryan Turnbull: Can I maybe just clarify that? The specific shift then is that student success would be what determines whether faculties get research funding. Is that what you're saying?

Mr. Fahim Quadir: No. We are separating it completely.

Our focus is exclusively on graduate student fellowships, which would not be tied to the success rates of faculty members' grant applications. That would be a separate issue.

Graduate students, regardless of their location and regardless of their affiliation, should be able to apply for fellowships based on their academic merit and excellence. That is one we are proposing. It would be based on the number of graduate students enrolled in research-based programs in universities across Canada.

Mr. Philippe-Edwin Bélanger: The quota would be calculated over the student population, from one university to another.

Mr. Fahim Quadir: The second one that we are proposing is something that Canada does not necessarily have now.

It creates a bigger challenge for students who, for many different reasons, cannot go to another location to pursue their academic degrees but have to be in their hometown. Despite the fact they are talented, they don't necessarily have the resources to go to another institution to participate in research activities or academic activities that are unavailable to them.

This Canadian version of the Erasmus program would allow students to go from one institution to another to be part of the vibrant process of research and learning.

Mr. Ryan Turnbull: Thank you for that overview; that's more clear to me.

What would be the ultimate impact on the research ecosystem in Canada across all the post-secondary institutions if those policy suggestions were put in place with the new framework?

Obviously, we don't have a crystal ball, but what's anticipated in terms of the outcomes?

[*Translation*]

Mr. Philippe-Edwin Bélanger: First, graduate scholarship distribution would be more equitable if it were based on student numbers. Quotas would be calculated according to the student population.

Second, promoting mobility in Canada would give all Canadians the chance to pursue a scholarship experience and incorporate a mobility component into their curriculum. Programs like Erasmus, in Europe, have proven the benefits of mobility during graduate

studies. The effects have been positive for success rates as well as research, since it is performed collaboratively.

In my opinion, a Canadian version of Erasmus, that promotes mobility inside the country, would benefit our student population.

[*English*]

Mr. Fahim Quadir: One thing I could highlight is that graduate education is always about recruiting talent, and it has always been. For this particular program, the policy changes would really help us nurture a culture of skill and talent. This applies especially in the current context, where we are witnessing a significant skills gap, so this proposal would help us address that issue.

The second thing is the competitive edge in the Canadian economy that needs to be built and supported. Graduate students are often at the forefront of discovery and innovation. By establishing a new kind of system that rewards everyone who is talented, we can build a competitive edge for the Canadian economy and Canadian society. That would be the ultimate benefit for the entire society.

• (1135)

The Chair: Thank you very much.

We'll move over to Mr. Blanchette-Joncas for six minutes.

[*Translation*]

Mr. Maxime Blanchette-Joncas (Rimouski-Neigette—Témiscouata—Les Basques, BQ): Thank you, Mr. Chair.

I would like to welcome the witnesses joining us today for this study.

The U15, a network of Canada's 15 largest universities, says that Canada's funding application evaluation system is based strictly on researcher merit, and is held up as an example to the entire world.

I would like to know what you think of that statement.

Mr. Philippe-Edwin Bélanger: In my opinion, the research evaluation system established in Canada is certainly of high quality, although there is room for improvement. Data from the Alliance of Canadian Comprehensive Research Universities, the ACCRU, illustrating the concentration of federal funding in a few universities, point to the probability of systemic bias. That's why we are encouraging federal organizations to review their funding distribution mechanisms.

It is why we are making this proposal. We consider this an important opportunity to reflect on a funding distribution approach and mechanism that allows a more equitable distribution of federal research funds across Canada.

Mr. Maxime Blanchette-Joncas: Thank you for your answer and these clarifications.

We addressed the funding issue strictly from the universities' point of view. However, I'd like you to tell us how students and researchers see things.

Furthermore, the best-funded researchers belong to the U15 university network, in other words, the 15 largest universities in Canada. How does this hamper research and innovation for a majority of researchers in small and medium-sized universities?

Mr. Philippe-Edwin Bélanger: Moving forward, the Canadian Association for Graduate Studies proposes that scholarships be distributed on the basis of quotas calculated according to student population. We think that this would be a fairer way of distributing scholarships among Canadian universities. We also believe that it would focus scholarship distribution on academic merit. At the master's level, federal research organizations already assign scholarship quotas to universities under the Canada graduate scholarships program. Universities receive scholarship quotas, and the scholarships are awarded based on merit, subject to strict standards.

I think that, if we were to set up a grant distribution system that uses student population to calculate quotas, grant distribution would be representative of the student population and more equitable. Furthermore, it would serve all communities in Canada.

Mr. Maxime Blanchette-Joncas: Mr. Bélanger, you say that scholarships are awarded based on merit.

The data show that 79% of universities, or the 15 largest universities, receive all research funding in Canada.

Under the current system, does "merit" depend on having access to a large university or being close to an urban centre, where Canada's 15 largest universities are concentrated?

Mr. Philippe-Edwin Bélanger: That's why we want to use student population as the basis for assigning scholarship quotas.

I was saying that scholarships are awarded on merit, but I should point out that Canadian universities are doing this already when they manage the master's scholarship quota, or the Canada graduate scholarships quota. Universities receive scholarship quotas and distribute them internally in keeping with strict standards of academic merit.

By changing the distribution formula and setting a scholarship quota based on student population, I think we would better serve the population by spreading scholarships across Canada. The granting councils and the federal government could trust the universities to award these scholarships in an exemplary manner, based on merit, within the institution.

Mr. Maxime Blanchette-Joncas: I've taken note of the many recommendations that you've shared with us today, and one of the things I want to return to is the funding allocation system.

First, scholarships for master's and doctoral students are currently distributed according to the funding amount that universities previously received from granting councils. In addition, the chairs allocated to each institution reflect the percentage of funding that each institution received of the total funding granted by each granting agency.

In every case, small and medium-sized universities are disadvantaged and will continue to be disadvantaged under the current research funding distribution system.

Do we need to review the way that research funding is distributed in order to fund a greater diversity of students and researchers?

Mr. Philippe-Edwin Bélanger: In fact, we are proposing to review this distribution and to calculate scholarship quotas not based on amounts obtained in previous scholarship competitions, but based on student population.

As we've seen, the student population outside urban centres and large universities could be under-represented from a scholarship allocation standpoint. We believe that using student population to establish scholarship quotas would achieve a better distribution of research funds for students across Canada.

● (1140)

Mr. Maxime Blanchette-Joncas: Thank you, Mr. Bélanger.

I would like to come back to what you mentioned about certain programs, including the Canada First Research Excellence Fund, which is a significant source of research funding. The largest universities have told us that they manage to collaborate with small and medium-sized universities. In my opinion, that's not enough. We give a little bite of the pie to small and medium-sized universities, and assume it amounts to actual research funding equity.

I'd like to hear what you have to say about that, especially about the fact that small and medium-sized universities lack sufficient internal resources.

[*English*]

The Chair: Answer very briefly, please. We're just about out of time.

Mr. Philippe-Edwin Bélanger: Is it over? I'm sorry.

[*Translation*]

Do I have time to answer the question, Mr. Chair? I'm being told that I can.

As I was saying, the administrators of smaller universities have trouble meeting the requirements of the very large programs sponsored by the federal government because they lack sufficient administrative resources. Furthermore, all kinds of new compliance requirements apply to all the institutions, whether their administrative team is very large or small. Examples include compliance requirements related to equity, diversity and inclusion practices or research security requirements. These place the smaller institutions under an added strain.

[English]

The Chair: That's great. Thank you very much.

Mr. Cannings, you have the final six minutes, please.

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Thank you all for being here.

I'm going to start with you, Dr. Whitaker, if only because you're at Memorial University where I did my research many years ago. It's good to have someone here from MUN.

Memorial is one of these small to medium-sized institutions. It's big enough to have a medical faculty, but it's not part of the really big university group of research institutions in Canada.

Could you expand on the difficulties of institutions in that category in terms of attracting research funds? We've heard a lot about support for grad students. Most grad students get their support directly from their supervisors, who are getting their funding largely from the federal government. Could you speak to the difficulties of a small to medium-sized institution like Memorial in attracting those funds?

Dr. Robin Whitaker: Thanks so much for that question. It certainly does speak to issues affecting graduate students.

I think this points to a couple of issues. One is that we need to think about a larger amount of funding available across the board. I don't think it's helpful to set this up as a kind of competition between different institutions. We're looking at finding ways for the entire system to thrive, but that also means taking a broader approach than simply looking at research funding. We need to look at the foundation as well.

There are challenges in terms of, as I mentioned in my opening remarks, the administrative burden that often faces researchers at some institutions where there aren't as many supports on site. This affects both the ability to apply for research and the ability to make the best use we can of research funds when we get them.

It's time that we had a broad national conversation about the best way to support post-secondary education and research across the board, and that certainly includes the availability of research funding, which will benefit graduate students in terms of both fellowships and scholarships and in terms of training opportunities, but the foundation also needs to be there so that we can leverage that funding and really do our best for Canada.

Mr. Richard Cannings: Thank you.

Now I'd like to turn to Dr. Weissman.

Thank you for bringing up the issue of housing—in this day and age when housing is one of the real critical crises of the nation as a whole—and how it affects students and thereby directly affects research across Canada.

In my riding, I have two small institutions, both colleges, Okanagan College and Selkirk College. We have a real housing crisis in our region. Housing prices are very high, and wages tend to be low. Both of those institutions are trying to tackle that problem of housing.

I'm wondering if you could expand on how those housing issues affect the students who are doing most of the research.

• (1145)

Dr. Eric Weissman: I can give you two very concrete examples from our own network.

Two of our research partners are the University of Alberta and Nova Scotia Community College. At the University of Alberta, they introduced a safe home project for students. It's an emergency-type of housing for students who are intermittently, not chronically, experiencing loss of shelter for a variety of different reasons.

In Nova Scotia, we have a great deal of students who are living very close to the poverty line or below it. For other reasons—perhaps they lose their job, they get ill or they miss a paycheque—they lose their housing, so they have to choose between school or finding another job.

They introduced, in co-operation with the city, a number of programs for subsidized units in the city to specifically house students who are in emergency shelter need. As a result, they've serviced dozens of students over the last several years who have been able to stay in school, maintain their research tracks, finish their degrees and go on to their graduate degrees.

In my own work, I've taught in five provinces and two states. Everywhere that I've been, I've worked with students who are sometimes the first in their families to go to university, especially here in Saint John. Many of them are going on to graduate school at UNB or other places, and we have a very high poverty rate here. We have an accepted narrative that it's okay to suffer through school, so you have people who have been reinventing themselves or who see their housing precarity as not a great issue, and then they get into graduate school and they're working incredible hours. They're trying to work, and then something has to go. They can't lose their housing.

In our research, 70% of students said they would leave if they faced homelessness, and that is what's happening across the board.

The Chair: Thank you.

It's good to get the numbers in there.

Now we'll give a five-minute round to Michelle Rempel Garner to start us off.

Hon. Michelle Rempel Garner (Calgary Nose Hill, CPC): Thank you, Chair.

I'll start with Dr. Weissman.

I was really struck by your comments on the student experience as it correlates to housing. This is something we're all very aware of.

I'm wondering if one of the recommendations that you think the committee should make to the federal government is that the eligibility for federal research funding be tied to some aspect of the rental housing index like rental availability within a certain region, which could be modified by purpose-built housing for student accommodations.

Dr. Eric Weissman: I think that's a brilliant idea. I hope you'll come to our symposium in the fall, because we're trying to upstream ideas about how to deal with that piece.

I believe there is no single housing solution. Most of us on our research team fundamentally believe that, even if students aren't getting SSHRC-CGS or other grants, as soon as they enter graduate school, there should be some form of housing subsidy to help guarantee that basic need. Really, the difficulty they are having with precarious housing is leading to them failing their own goals.

Yes, I think it's a great idea.

Hon. Michelle Rempel Garner: I'm trying to look at a way to incent institutions to be part of the solution when it comes to housing. We've seen many institutions across the country with high intake numbers of students—particularly international students—without thought to housing.

If we could incent institutions, particularly through research funding, to use land that has been granted to them, or push municipalities or even the federal government as part of their lobbying strategy to ensure there is more rental housing through a metric like this, perhaps we would get more action.

Dr. Eric Weissman: It's interesting that you say that.

I will tell you that, as a result of some of the work we did with Nova Scotia Community College in the Maritimes.... They grabbed onto this very public story because everybody knows a student who is suffering because of housing. The Government of Nova Scotia announced, four months ago, five new housing facilities for students through the college as a result of understanding this need. It can be done.

Many of the vehicles you're talking about are there to be utilized.

• (1150)

Hon. Michelle Rempel Garner: Thank you.

That was a bridge to my questions for Mr. Bélanger and Mr. Quadir.

There's this notion of quotas, where funding is attached to student population. I understand where you're going with it, but don't you think it would just incent institutions to juice their numbers, as opposed to looking at overall student experience? If we have a set quota experience, what would stop universities from just increasing numbers or counting virtual students, and not accounting for things like housing when we're in the middle of a major housing crisis?

That's point number one.

The second concern I have with quotas is that they might have a perverse outcome. I'll be very honest with you. The people who are in front of this committee the most—more importantly, in front of public servants the most—are highly paid lobbyists from the U15 Group. They have a whole advocacy group. They are constantly in

front of public servants. I am not convinced a quota system wouldn't make outcomes worse for smaller institutions because of the lobbying presence of larger institutions, which could easily gamify a quota system that would work in their favour, putting a cap on the ability of smaller institutions to expand student experience.

If quotas aren't the be-all and end-all, what else could we be doing? Are there ways to perhaps decouple graduate student funding from professorship funding and look at having more access to rural institutions or colleges? Frankly, we're always looking at the rural versus urban metric here. Perhaps we should be looking at affordable versus unaffordable institutions, as well.

What else could we be doing? What else, outside of quotas, is a way to solve this problem?

The Chair: You have about 30 seconds.

Mr. Fahim Quadir: Thank you for asking this amazing question.

One of the things we want to do is make graduate education accessible. I think that is the number one priority. If Canada wants to succeed in the current global political economy, we have to consider graduate education as a top priority for the nation.

The second question, which is associated with the first one, is this: How do you make sure the student succeeds? Should you be able to offer funding support so they don't have to go to a food bank or struggle to find the money to cover the cost of housing for the duration of their study?

These two issues, in my view, influence the narrative of graduate education in Canada. I don't think the quota—

The Chair: We'll have to leave it at that thought, but thank you.

Now it's over to Ms. Kayabaga for five minutes.

Ms. Arielle Kayabaga (London West, Lib.): Thank you, Mr. Chair.

Perhaps I will let him finish his comments, as I am interested in the answer, as well.

The Chair: That's a great idea.

Ms. Arielle Kayabaga: You can finish your answer to my colleague.

Mr. Fahim Quadir: I've lost my thoughts on that.

Voices: Oh, oh!

Mr. Fahim Quadir: Maybe it will come to me, and then I'll let you know.

Ms. Arielle Kayabaga: I can bounce off some of the comments that I heard from my colleague across the floor. I'm interested to know what your thoughts are on the onus being on the universities to also support their students and make sure that.... We were talking about the food banks, for example. I don't think that should be a Canadian problem. The universities do receive funding from the students and from the government to establish a healthy environment.

She was mentioning housing. Where is the onus on the universities to also provide that housing, versus just keeping an open quota where you limit it to the resources you have? Can you maybe comment on that?

Mr. Fahim Quadir: It's a very difficult question.

Universities don't receive really all the support for housing or for offering what we call "living subsidies" to graduate students. In the current environment and in what we normally do, I would say that only about 10% of our students are funded externally by granting councils. Depending on the institution, it could be even lower, at anywhere between 1% and 16% of the students.

The larger body of our graduate student community would be supported internally by us in the institutions. We offer funding support in the form of teaching assistantships, research assistantships, graduate fellowships and university scholarships. All of those things would come from the university.

I have been in graduate education for the last 18 years. What I have been witnessing in the last few years—maybe three or four years—would be almost unparalleled to anything I have ever witnessed in my entire 18 years of graduate administration. It's a crisis situation for universities. As a graduate dean, I cannot really go to bed not thinking of those students who are struggling on a daily basis.

We do whatever we can internally to mobilize resources to support graduate students to make sure they get through this process, and that they get through this process quickly and painlessly, but unfortunately the whole situation is beyond our control. We don't have the resources to support graduate students the way we want.

If I could just go back to the issue of quotas, I tend to think that the quotas we are proposing would benefit all universities, not just a few, and every single university with a graduate population would receive a number of scholarships dedicated entirely to their own students. They should not lose the opportunity to support the graduate students who desperately need funding support for the amazing research activities they've undertaken.

• (1155)

Ms. Arielle Kayabaga: What effect do you think the current model we have in awarding graduate scholarships has on smaller universities?

Mr. Fahim Quadir: The smallest universities are struggling. As you have heard, 79% of the funding would be concentrated into particular areas, including my own university. If we are to think of something more beneficial for a large number of graduate students studying in all universities in Canada, we have to step outside of the current funding model to see how we could support those stu-

dents, who are struggling to receive funding support despite the fact that they are academically bright and very talented.

Ms. Arielle Kayabaga: Could I ask a question of Robin Whitaker?

During the recent study on pay gaps among faculty at Canadian universities, witnesses explained that the traditional division of the past of tenure track and tenured university professors involved 40% teaching, 40% research and 20% service, such as sitting on committees, reviewing for journals and mentorship.

Is there a concentration of federal research funding in large research universities and does it have an effect on other aspects of professors' work, such as teaching or service work? Could you explain that a bit?

The Chair: You have about 20 seconds.

Dr. Robin Whitaker: Thanks for that.

I think that across the board what we're seeing is increasing pressure on everyone, thanks to the unfortunately large number of precariously employed academics. We can't separate those questions from wider system questions. People are increasingly—

The Chair: Okay—

Dr. Robin Whitaker: I think I'm out of time. Am I?

The Chair: Yes, you are. Thanks.

We're almost at the top of the hour and we have rounds of two and a half minutes, starting with questions from Maxime Blanchette-Joncas.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank you, Mr. Chair.

Mr. Bélanger, do you know whether the concentration of research funding in Canada affects graduation rates?

Mr. Philippe-Edwin Bélanger: Unfortunately, I don't have any data on that.

I know that graduation rates can vary quite a bit from institution to institution. For example, the INRS has a great graduation rate even though we're a small university.

I don't have data on the comparative graduation rates of the 15 universities.

Mr. Maxime Blanchette-Joncas: It would be great if you could look into that and get back to us in writing.

Can the concentration of funding affect research funding accessibility and equity among certain linguistic communities, particularly francophones?

I can give you the following figures: we know that 79% of research funding goes to the 15 largest universities in Canada and that 13 of the 15 largest universities in Canada are anglophone. The anglophone network is therefore more extensively funded than the francophone network. In your opinion, do these data indicate that anglophone students have better access to research funding?

• (1200)

Mr. Philippe-Edwin Bélanger: I'm going to go back to the quota concept again. I think quotas would restore balance to granting scholarships.

I think that the funding situation in terms of francophone versus anglophone universities is improving. For several years now, francophone universities have managed to obtain a slightly larger share of the available funding.

What concerns me about francophone universities is the capacity of francophone communities to submit their grant applications and scholarship applications in French. I think that francophone students in Canada should be assured that scholarship applications are being evaluated in the best way possible.

Personally, I think that more work needs to be done in that regard. I still have some concerns about the linguistic ability of committee members selected by the research councils. My concern has more to do with the evaluation of applications in French.

Mr. Maxime Blanchette-Joncas: Thank you.

[*English*]

The Chair: Thank you.

There were very good details in that answer as well.

Mr. Cannings, you have two and a half minutes.

Mr. Richard Cannings: Thank you, Mr. Chair.

I'm going to turn back to Dr. Whitaker again.

You mentioned in your presentation, at the top, that there was some inequity in SSHRC accessing funds for research, that there was more research and fewer dollars. How much of that difference is simply due to the fact of which research is being done? Is there some difference between social science research and engineering or life sciences research—the NSERC stream—in terms of the capital cost of having a lab doing that sort of work? Is this part of that, or has that been factored into your comments?

Dr. Robin Whitaker: Thanks for that. I anticipated that I might get that question.

There are some forms of social science that require larger amounts of money. Polling research and so on sometimes do. But you're right, of course, that the cost of maintaining a medical lab or a basic science lab can be higher than that of many forms of social science research.

I think we're talking not necessarily about an exact balance but rather about a rebalancing with a view to increasing and making access more equitable across the board. About 60% of researchers in Canada are in a SSHRC discipline, so the fact that only one-fifth of the granting council money is dedicated to SSHRC does seem to be something of an inequity. Of course, there is also the question of in-

terdisciplinary research and that new frontiers fund that I mentioned, for which the success rates are quite low. That indicates a lot of potential for research across a variety of disciplines and focuses.

Again, I think the big question is this: What can we do to increase and enhance the health of the system as a whole?

CAUT has suggested a number of measures that we think would help. This committee is doing really important work. As I mentioned, I think it's also time to have that national conversation. Universities and colleges have been struggling for quite some time. The proportion of public funding available has decreased significantly since the early 2000s, and that has an effect on the ability of researchers to best purpose the money that is available at present.

Thanks.

The Chair: Thank you very much.

Thank you to all of our witnesses for your work with us today.

Philippe-Edwin Bélanger, Fahim Quadir, Dr. Robin Whitaker and Dr. Eric Weissman, thank you for your testimonies and your answers. If there are some answers that need more work, please submit them in writing to the clerk. We will include them so that our analysts have them as they prepare our study report.

We'll suspend for a few minutes.

• (1200)

(Pause)

• (1205)

The Chair: I call the meeting back to order.

Welcome back. Pursuant to Standing Order 108(3)(i) and the motions adopted by the committee on Tuesday, January 30, and Thursday, February 15, 2024, the committee is resuming its study on the distribution of federal government funding among Canada's post-secondary institutions.

It's now my pleasure to welcome and thank our witnesses for coming this morning.

First, from the Olds College of Agriculture and Technology, we have Dr. Ben Cecil, president and CEO. There's some great work at Olds right now. I'm looking forward to your testimony. The University of Guelph does a lot of similar work.

From the Ontario Tech University, we have Dr. Steven Murphy, president and vice-chancellor, who is joining us via video conference. Welcome, Dr. Murphy.

We'll start with five minutes from each of you. We'll be close on time.

Let's get started with Dr. Ben Cecil for five minutes, please.

Dr. Ben Cecil (President and CEO, Olds College of Agriculture & Technology): Thank you, Mr. Chair.

Good afternoon, everyone. My name is Ben Cecil, President and CEO of Olds College of Agriculture & Technology. I am very pleased to be here this afternoon.

I'm here to talk about the distribution of federal government funding impacts on college research activity.

I'd like to address the matter from three perspectives, namely, equity, eligibility and impact.

Let me begin by setting the context of research funding at colleges. There are approximately 120 publicly funded colleges in Canada that support local businesses, entrepreneurs and social innovators through the research expertise of their faculties and staff. These colleges advanced over 8,000 projects, created over 2,400 prototypes, designed over 1,800 new products, developed over 1,000 new process improvements and created over 900 new service offerings, and that was just in 2021-22 alone.

These advancements were driven by industry and business partners that had real challenges their organizations could not solve. They sought the help of a college to assist them in solving real-world problems for their organizations. The intellectual property generated by these advancements remained in the hands of the external partners, ensuring the results of the research remained within the Canadian economy.

I will speak to the impact such advancements have to the economy shortly, and, specifically, within the context of my institution. What I can state at this juncture is that those advancements I cited above were supported with only 2.9% of federal research funding, or about \$110 million.

This leads me to my first point which is equity. The federal research funding programs need to be reconsidered and reframed, so colleges are considered as an equal partner in the research ecosystem. Colleges have demonstrated over the last 20 years that they have an impact on the communities and industries they serve. They deliver results to real-world solutions and real-world challenges in real time.

This begs the question, is the distribution of federal research funding addressing the priorities of Canadians? Is the funding supporting the challenge-based research being conducted at colleges adequate to address the issues facing Canadians today, such as climate change, affordable housing and food security to name just a few?

Colleges have risen to the occasion by increasing their capacity and capabilities to support challenge-based research, enhancing Canada's social and economic well-being, yet, they do so on only 2.9% of the federal research budget. There is an opportunity before this committee to help redefine and reframe the role of colleges as equally valued full partners within the federal research funding ecosystem.

I just mentioned colleges as equally valued full partners which leads me to my second point of eligibility. Presently, the federal research funding system uses metrics, such as the number of publications, prior tri-council funding success, holding a research chair position or number of HQPs to award research funds. These are not the metrics of colleges. Our metric and the language we use is impact.

Colleges are being asked to have similar administrative functions and due diligence as universities in areas related to research data security, technology transfer or IP management, ethical compliance and animal care compliance. Colleges cannot support the same level of administrative function as universities without a similar indirect cost funding model as universities. The simultaneous inequity and ineligibility for colleges to receive the same extent of research support funds needs to be re-evaluated.

Finally, I would like to address my last point which is impact. Colleges are deeply embedded in their regional economies. Connected to industry, colleges are asked to help address real-world challenges being brought forth by external partners with real-world solutions they can implement immediately. That linkage between challenge, solution and commercialization is impact. It is measured by revenue growth, job creation, innovation and economic growth through commercialization.

Olds College is ranked number two nationally for research impact amongst colleges. Since its inception in 2018, the smart farm—the cornerstone of research at Olds College—has supported 263 companies and organizations, and 142 projects. This has resulted in 394 process and product improvements with over 720 jobs created. It has contributed over \$811 million directly back to the firms that we have worked with, which channels its way directly into the Canadian economy. That's over \$6.39 million per small and medium-sized enterprise that we work with. Members of the committee, that's impact.

The college sector provides a significant impact to the Canadian economy. This brings me back to my original question: Is the distribution of federal research funding addressing the priorities of Canadians? Do the investments Canadians make into our research ecosystem have a direct impact on the things that matter most to Canadians, namely, jobs, food security, climate change, affordable housing, etc.?

• (1210)

Are Canadians seeing value in their investment, and is that investment giving them the output and the impact they expect?

Thank you very much to the committee. I look forward to your questions.

The Chair: Thank you, Dr. Cecil.

Now we'll move to Dr. Murphy from Ontario Tech University for five minutes.

• (1215)

Dr. Steven Murphy (President and Vice-Chancellor, Ontario Tech University): Thank you, Mr. Chair.

Good afternoon, members of the committee. I would like to thank you for having me today. It's good to be back.

I would like to start off by stating that Ontario Tech is a STEM-based institution with approximately 12,000 students. We're located in Oshawa and proud to be in the Durham region.

We do not strive to be a comprehensive university; we know our strengths, energy and engineering, and we focus on them. I'd like to focus my comments today on how Canada can address two major problems related to research.

First, Canada has a productivity problem. We are less productive per capita every year and have fallen behind our traditional global peers. As we know, at the heart of the productivity problem, although the Government of Canada invested \$3.42 billion in research in 2021-22, compared to our global peers, Canada has fallen way behind. In 2021, Canada invested just 1.7% of GDP on R and D compared to the U.S. at 3.5%, Japan at 3.3%, Germany at 3.1% and the list goes on.

Academic research and development are major drivers of Canadian innovation and economic growth. Universities conduct more than 40% of Canada's total R and D, producing over \$55 billion annually in economic activity and supporting 680,000 direct and indirect jobs in communities of all sizes, including the Durham region. When it comes to research funding, however, Canada is falling well behind our peers, that have made significant new investments to support advanced research training.

At Ontario Tech, we are recognized internationally for our research strength, and our impressive reputational trajectory continues upwards with a fresh distinction as Canada's research university of the year in 2023. In fact, Research Infosource recently reported its five-year university spotlight highlighting a key number of research areas of growth, which I think are germane to our conversation today.

We're ranked number one in Canada in cross-sector collaboration publications percentage growth. That talks about the importance of collaboration in research. We're ranked number two in Canada in corporate research income percentage growth, which means that we are working with corporate entities to solve practical, real-world problems. We're ranked number two in Canada in international collaboration publications percentage growth, which means we're solving research dilemmas that face the globe.

With total university research income now surpassing \$23 million annually and growing by about 8% every year, Ontario Tech boasts strong growth in not-for-profit research income, international government research income and international collaboration. A recent international survey ranked us as a top-three engineering school, and we're extremely proud of that. We're leaders in R and D.

The R and D problem is that we have not seen productivity growth in an awfully long time, and, over the past four decades, we have slipped significantly compared to other countries. The Bank of

Canada argues that three elements contribute to stronger productivity: capital intensity, labour composition and multifactor productivity. All three of these point to the importance of the job market and being highly trained in fields like AI that will change the productivity needle.

Ontario Tech is well positioned to respond to this labour market demand. It's through the programs in computer science, engineering, business and IT, business analytics and artificial intelligence, where we have really well-established research programs, that we're going to be able to graduate our labour needs to counter the productivity problems. You need to have that cutting-edge research and those ideas that take shape in our students' minds and blossom as they enter the workforce.

The number and dollar amount of Canadian graduate scholarships, as we know, has not kept pace with inflation or the growing graduate student population. It is estimated that, each year, thousands of recent Ph.D.s leave Canada to pursue careers abroad, representing an annual loss of \$740 million to the country. This poses a serious problem for our future and our growth.

We urge the committee to focus on ways the government can ensure that sufficient funds are available to all universities and accessible to researchers at institutions of all sizes that submit successful research grant applications.

We're a glowing example of an institution that is only 20 years old but has to go up against the U15 and others with established records. We're really proud of the Canada research chairs we have and the trajectory that we are gaining, but we are definitely swimming against the current.

• (1220)

Every university has its competitive niche. At Ontario Tech, all things energy, engineering and STEM more broadly are our areas. In fact, roughly 60% of our programs are in STEM fields, which exceeds the provincial average by over 20%.

The Chair: Thank you.

We'll have to work the rest into answers, if possible.

We're going to our first six-minute round with Mr. Soroka, please.

Mr. Gerald Soroka (Yellowhead, CPC): Thank you, Mr. Chair.

I'll start off with Dr. Cecil.

Could you please describe the specific returns on investment that Olds College has observed from its smart farm initiative?

How do these returns compare to traditional educational models?

Dr. Ben Cecil: As mentioned in my opening remarks, we have a significant impact coming from the smart farm. The smart farm is the core of all of the research we do at Olds College. Our focus is agriculture. It always has been and always will be. The smart farm is the cornerstone, where we integrate technology and applied research on an actual commercial-scale farm.

That commercial-scale operation has, over the last five years, received less than \$7 million of impact funding from the tri-council, yet \$811 million was returned to businesses and partnership firms that have worked with us over the last five years. That's 142 projects over 219 SMEs, almost all of which are based out of the Alberta and the western Canadian economy.

Mr. Gerald Soroka: With programs like the college's brewery, greenhouse and butcher shop, how does Olds College measure the success of these programs in terms of student employability and skill development?

What feedback have you received from industry regarding the readiness of graduates from these programs?

Dr. Ben Cecil: The industry has been incredibly supportive, whether it is brewery, meat operations or any of our other programs.

Our measure of success is exactly as you've identified. It is the job-readiness of our graduates. Because we are directly connected to the industries that we serve, our industry advisory councils tell us what they are expecting of a recent graduate and the skill sets they require in their place of employment. That gets integrated directly into the curriculum. As such, our students have a very high degree of employability.

Over 92% of our students are in-field. In other words, what they've studied is where they end up working—in the same field. A little north of 92% have jobs directly related to their field of study.

Mr. Gerald Soroka: Looking forward, what are the new areas of applied research that Olds College is planning to explore?

How will these areas align with the evolving needs of the agricultural industry and technology advancements?

Dr. Ben Cecil: Some of the challenges we face in agriculture are part of what is known as the grand global challenge: How do we continue to feed more people on less land with fewer negative impacts of commercialized agriculture? How do we minimize our carbon footprint and at the same time maintain yields on a continually decreasing scale of operation?

That scale of operation at the individual farm level increases, but globally, the land mass is decreasing. That challenge results in the greater integration of technologies. Therefore, we have programs on technology integration in agriculture.

For our students now, because we are the school of agriculture and technology, the integration of the two is absolutely fundamental to understanding the future of ag.

Here is a case in point. The newest John Deere combine has more onboard computers than a shuttlecraft. With 32 onboard computers, a modern combine basically drives itself, but it doesn't service itself. It needs to have the technical supports in order for the farmer or the producer to actually have the services needed to continue to produce at the scale that literally feeds the world.

Mr. Gerald Soroka: Yes, I know there's quite an evolution of technology. I had a John Deere combine many years ago and it drove itself at that time. It's amazing all the problems that are caused when one ground wire doesn't connect.

Dr. Ben Cecil: Exactly.

Mr. Gerald Soroka: How do partnerships with industry leaders contribute to Olds College's strategic goals, especially concerning applied research and technology development?

Can you give examples of how these collaborations have directly benefited students and the agricultural sector?

Dr. Ben Cecil: Absolutely. The partnerships we have with industry are foundational to the work we do. While we have had an impact of hundreds of millions of dollars on the regional economy and the national economy, almost all of that support has come directly from industry. Our research profile, while supported a little bit by the tri-council, is primarily supported by industry itself.

We have a direct connection to them because they have problems that they look to us to simply solve. In the context of our role, we can't wait for a Ph.D. student to turn out a paper that has a result after four years. We need solutions in season. In season for us is a very quick turnaround.

The partnerships we have help us continue to advance research, whether it is studying carbon sequestration, nitrogen fixation, ground water support, clean air and clean water or soil productivity, and the list goes on and on.

What impact does that have for our students? We have over 60 students directly connected to research at the college. They are employed by the firms and by the college itself to support research in those firms.

From a curricular perspective, the relationships we have with our industry partners allow us to receive equipment as donations on a regular basis. Every four weeks those donations of equipment are turned over in our labs so that the students are working on the latest and greatest technology, which they will see literally in the field upon graduation. Without those partnerships, we could not do what we do at the college. On any given day, in our trades and skilled trades facilities, we have between \$7.5 million and \$8 million of equipment on loan. Without our industry partners, we would not have the funding to make that a sustainable operation for the college.

• (1225)

The Chair: You're just at time. Science on the farm would be a very interesting topic. I'd love to go into that one.

Dr. Jaczek, let's stay on topic for this morning. You have six minutes on this study. Go ahead, please.

Hon. Helena Jaczek (Markham—Stouffville, Lib.): Thank you, Chair.

Thank you to both witnesses for excellent presentations.

I'm going to start with Dr. Murphy. I'm not sure if you were able to join us for the first hour, but we did receive what to me was a very persuasive presentation by the Canadian Association for Graduate Studies. They talked about a method and formula for redistributing funds to universities that was based on the number of graduate students and on academic excellence.

I am wondering, Dr. Murphy, how you feel about that proposal and whether you think it has merit over the current system.

Dr. Steven Murphy: I think we're absolutely talking about the right thing in terms of how we think about redistribution. Those answers aren't always easy.

My colleague talked about impact, and I think that's a really important thing. How do we quantify impact? I would say for our researchers and our student researchers, their biggest marker is whether they are actually having an impact in industry. Are they helping to move the needle? I think we have to move beyond traditional metrics around publications and so on and include the extent to which our technologies and our IP are getting translated into actual industry productions.

All that is to say that I believe we need to come up with a different system that would allow for smaller and medium-sized universities to get a larger slice of the pie, because certainly we have areas of specialization that the U15 does not. I'm not sure whether the proposals I heard today that were based simply on graduate student numbers will bring us to the desired outcomes.

Hon. Helena Jaczek: I'm wondering if you've had any experience with the discovery grants application process that is administered by NSERC. We received a briefing note from the U15 that described this particular process. It seems very lengthy and very comprehensive perhaps. It seems to take a year for applications to be processed.

Do you have any comments on that process? Has Ontario Tech University had experience with that particular process, and do you

see it as something that is working for you? Can it be improved in any particular way?

Dr. Steven Murphy: Obviously, our strongest area is in NSERC funding, so we have a lot of experience with discovery, as we do with SSHRC funding and CIHR.

What I will say is that there's a commonality among the three. Our researchers all comment that they spend far too much time filling in forms, redoing their CVs to a common CV standard, than they do with their research. I think that, to the extent the discovery process is perhaps slightly more onerous than others get, it gets a bad rap. The lesson to be learned is: Let's try to reduce the bureaucratic red tape around applications, especially in the forms that are required to be filled out. No one's asking us to skimp on the ideas and the science that we're putting forward, but in terms of the actual forms and working through the bureaucratic red tape, those are the elements that we see in discovery—and in the other granting agencies, to be fair—that need to be seriously reduced.

• (1230)

Hon. Helena Jaczek: Thank you very much for that. It certainly struck me as being excessively bureaucratic.

Dr. Cecil, you talked, obviously, about equity impact and the need for more funding, the type of work that colleges do. I have Seneca college in my riding, and I'm a great fan of the work of colleges. Apart from the absolute quantity issue in terms of the amount of funding dedicated towards colleges, are there any ideas, among all of you, on how those funds should be redistributed or distributed in a different manner?

Dr. Ben Cecil: Thank you for the question, and it is an intractable one that we have been dealing with since our inception in research about 20, 25 years ago. The third point that I talked about is also eligibility. While there is inequity in the system, part of that comes from the fact that colleges are simply not allowed to access certain funds.

It's the way that they are structured. With the infrastructure investment grants that NSERC held for a number of years, colleges were eligible. We are also eligible under the new mobilize grant. However, the mobilize pot is much smaller than it was under the IEs, and as such, eligibility is limited.

People have indicated to this panel before that colleges are available to hold Canada research chairs. However, with the criteria under which Canada research chairs are evaluated, colleges don't qualify, so it doesn't matter how large the CCIP pot is and how much the pool is within any given institution: If it's ineligible, it's ineligible. Therefore, it's about creating that equity.

The Chair: Thank you very much.

We go now, for six minutes, to Monsieur Blanchette-Joncas.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank you, Mr. Chair.

I'd like to welcome the witnesses joining us for the second hour of the meeting.

Mr. Cecil, last week, we met with your colleague from Niagara College, Marc Nantel. He reminded us not only about the importance of college-level applied research, but also of its relative recency compared to the more established and longer-standing research done in universities. As a result, the perceived scope of college-level applied research is less well known.

Could you tell us about applied research in your educational institution?

[*English*]

Dr. Ben Cecil: All of the work we conduct at our college is entirely applied, and as such, the application goes directly back to our industry partners. The application of the research we do is not held by the institution and the individual researchers, and that's one of the value propositions that colleges bring to the table. Because we do not have an interest in holding the IP and the work we do is not investigator-led but industry-led, we are not coming up with problems to be solved because of investigator interest. Rather, an organization comes to us and says, "I have a problem. Please help me solve it." The nature of that applied research makes the world of difference in our world, and our value proposition that we do not hold the IP is attractive to them. That's one of the issues universities typically face: They want to hold onto a portion of the IP as part of their revenue stream. That's what makes our work very appealing from an applied perspective.

[*Translation*]

Mr. Maxime Blanchette-Joncas: I would like you to give us more background information, especially for CEGEPs and colleges, which are more recent than universities. Nicole Vaugeois, an academic representative, reminded us in her speech on March 21 that universities, particularly Yukon University and Capilano University, are confronting challenges because they may not necessarily have a sufficient pool of talent, infrastructure or the funding history needed to access to certain scholarships.

Since research performed in colleges is relatively recent, as shown by the Olds College Centre for Innovation, founded in 1999, I would like to hear what you have to say on the subject. Do you face similar history-related challenges?

• (1235)

[*English*]

Dr. Ben Cecil: Indeed we do. Similar challenges are faced because of the newness of our entry into applied research. While we have been doing research in various forms for the better part of 100 years at our college, the application directly to the work we do now at the Olds centre for innovation is challenged by the existing framework. The existing framework identifies opportunity based on researcher capacity and researcher awareness. We've seen at this committee presentations with such phrases as the "right" research being done by the "right" individuals or researchers at the "right" institutions. The question I have to challenge the committee with is this: Who defines "right"?

There's a challenge that we have to address now from the Olds College perspective and organizations like the smaller institutions, whether they be Capilano University or Kwantlen or us, and that is understanding the capacity that we have built and leveraging that capacity across the ecosystem. We were challenged 20 years ago: Build capacity so that we understand that you have capacity. Well, we've developed it. The infrastructure or the system itself—what gets measured, how it gets measured and how it gets valued—does not leverage that capacity that we have built.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank your answer. It was specific and complete enough.

I would also like to hear your recommendations. You mentioned a few of them, but what would you suggest to improve the distribution of funding to colleges and CEGEPs, given that only 2.9% of total research funding is allocated to your institutions, and yet you represent close to 120 institutions in all?

[*English*]

Dr. Ben Cecil: In order to address the eligibility issue, that would be a significant advancement forward, allowing colleges the opportunity to actually lead research opportunities. As a case in point, a lot of research today has major partnership and collaboration grants with universities being the lead. Quite frankly, for this committee and your deliberations, colleges are very often seen as simply a checkbox to be achieved in order for the university to get the grant. We have a lot more to bring to the table. In fact, given the applied nature of the research we do, industry very often approaches us first. Then we're finding a university partner.

Can the committee and the federal funding model rethink the relationship so that colleges can be the lead and universities be the partner? It's the colleges that have been approached by industry to solve a real problem, not an investigator-led problem. That would be a very practical solution.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Practically speaking, Mr. Cecil, are you suggesting funding programs specifically for colleges and CEGEPs, so that you can get access to adequate funding?

[*English*]

The Chair: Please be very brief.

Dr. Ben Cecil: As I would very much love to see a pot dedicated just to colleges, I think a rebalanced and reframed system that takes a systems approach, the entire ecosystem, to leverage the infrastructure that Canadians have invested into colleges and universities is an equitable solution.

The Chair: Great. Thank you.

You have six minutes, Mr. Cannings.

Mr. Richard Cannings: Thank you.

I'll start with you, Dr. Murphy. You mentioned in your statement at the start that Canada is not putting in its share of research dollars when compared with other countries around the world. We're falling behind a lot of our major competitors and partners in the world in that regard. I had a science policy person from the U.K. in my office yesterday, and he commented on that.

For smaller institutions like yours, that are more focused on applied research, how should the federal government up its game in this regard that would help rebalance how institutions such as yours can do the work that we really need researchers to do in this country?

• (1240)

Dr. Steven Murphy: I think I'll illustrate it with an example. At our university, because of our location and our history, we're extremely strong in the nuclear energy space. One of the areas that we all know is experiencing a renaissance is nuclear power, whether it be small modular reactors or baseload plants.

In order to advance Canada and the world, you need organizations like ours, which has the only undergraduate program in nuclear engineering, followed by master's and doctoral programs in nuclear engineering. We need that kind of specialized talent to be able to move research from the lab into SMRs that don't yet exist.

It's a really great example of how the federal government needs to invest in a technology so that we can have proof of concept here in Canada through CANDU technology or, indeed, other technologies of SMRs working in the field in Canada, and then begin to sell those assets abroad, which I have also been involved in, in terms of initial talk.

When we talk about our competitiveness on the world stage, it all comes back to how seriously we are taking research that will drive industry and industries that will drive international trade, and areas where we can be leaders with our Canadian presence and our footprint today, not areas that we aspire to be in. I would say those are also very important in this discussion, but it's in areas we already lead and that we don't leverage effectively where federal investments can help the ecosystem to move even more quickly.

Mr. Richard Cannings: You also mentioned the situation with grad student funding in Canada, which hasn't kept pace with inflation and hasn't been upped in over 20 years. In fact, we're hoping for some good news on that in the budget later today. Most grad students don't get their funding through that program, although a significant number do. They get it directly from the principal investigators.

I'm just wondering how that situation plays out in a small institution like yours, and how we can help graduate students get the funding they need through increased research grants to smaller institutions.

Dr. Steven Murphy: Absolutely.

You're quite right. At our institution, about 16% of our grad students are federally funded, which is actually a fairly high number in comparison to peers. It points to the real importance of funding our research and, of course, our professors. This is because, as I'm sure

you've heard many times over, our professors are the ones who help the university provide RAs and TAs. Even more importantly, they provide opportunities and scholarships through their grants to be able to attract these people.

It's only when we combine federal scholarships and, potentially, provincial scholarships, which are fading in number, with institutional offers that are pulled from faculties' grants accounts that we can be competitive. As those grants accounts diminish in real dollars over time, our ability to attract students and keep them in Canada is significantly decreased.

Mr. Richard Cannings: I'll turn to Dr. Cecil.

We've heard at other times in this committee how the funding models for colleges don't really match the reality of the different sorts of research you do when you react to a company coming to you, saying it has a problem. You want to access research funds, but there's an intake that you just missed.

You said you're dealing with agriculture. Things have to grow at a certain time of year. Are there specific ways that those funding opportunities for you can be altered so that they make more sense for colleges and technical institutes?

Dr. Ben Cecil: That's a fantastic understanding of the issue.

The challenge we will be faced with—and this will be one of the serious deliberations for this committee to consider—is that in the reimagining of all federal research funding, will there be the opportunity to create an open pool that is allocated to a college or a university that allows it to be opportunistic and address an immediate and emergent issue? The whole world came to a stop for COVID, but the whole world had to respond quickly. The coffers were opened.

When an opportunity presents itself to a college or a university, is there an open pool that it can draw from quickly that is already allocated to the institution, and not back to the feds?

• (1245)

The Chair: Thank you.

We're a little bit over, but that was a valuable piece to get into our study.

Ms. Rempel Garner, you have five minutes, please.

Hon. Michelle Rempel Garner: Thanks, Mr. Chair.

Dr. Cecil, you talked about the indirect cost of research funding. There are a lot of redundancies that happen with the indirect cost of research in terms of how the federal government allocates it across different institutions across the country. For example, in Calgary, there's a lot of overlap on things like tech transfer offices or research admin support. Is there a way that the federal government could restructure that support to give more access to those types of services for institutions like yours that are based in a region around a university that already gets a lot of support for those sorts of things?

Dr. Ben Cecil: I think one of the challenges that we will have to address with that issue around the research support fund is this: At the university level, they have a lot of infrastructure to support those indirect costs; it is less so at a college. The connectivity between regional economic development agencies, granting councils, innovation labs and things of that sort.... Those are also considerations because, since they are being federally funded, it is about taking a look at the entire ecosystem.

Are there ways to ensure that other granted bodies have the opportunity or the obligation and the mandate to support other forms of research support, like institutions at Olds College? Capilano has been referenced before. With regard to institutions that don't yet have that infrastructure, can they leverage it?

Hon. Michelle Rempel Garner: On that point, I'm trying to think of ways, concrete recommendations from this committee, to look at restructuring federal research funding allocations that could benefit nimble institutions like yours that are working on real-life problems.

One of the ways that we've kind of heard tangentially from other institutions is to make different types of institutions eligible. I'm wondering if it's a broader principle. If there's a certain type of research that the federal government wants to fund, it should be less dependent on the institution that's conducting it and more dependent on whether the institution has the capacity to deliver on a certain number of criteria—for example, public access to research, knowledge translation, certain types of IP ownership policies.

Do you think that's a way of, perhaps, rethinking or reframing how federal research funding could be allocated?

Dr. Ben Cecil: I couldn't agree with you more. I think that's a wonderful opportunity to explore, as long as it is also paired with equal eligibility between colleges and universities.

Hon. Michelle Rempel Garner: This is what I'm getting at. If we sort of reframe the probably dated dichotomy between universities and colleges in terms of that being the eligibility criteria and start looking at the type of research and the capacity to support research, is that kind of what you're driving at on a high level?

Dr. Ben Cecil: Absolutely.

Hon. Michelle Rempel Garner: Now, what some of our granting agencies or people in our federal public service might say is that we want to also be able to be sure that whoever is applying for this research funding—or whatever institution is doing it—has the capacity to deliver on certain results. Could making them both eligible and addressing concerns around capacity-to-deliver be a way that non-U15 institutions could square that circle? Could stage-gated funding be a way? Let's say that your institution was going for a

fund that you've never been able to apply for before. Could stage-gated funding be a requirement for first-time institutions on certain types of research funding?

Dr. Ben Cecil: It could be. It would also depend on the metrics being used on those stage-gates, and that would be critical.

Hon. Michelle Rempel Garner: I'm speaking more about something like this: The researchers have been hired. The infrastructure is up and operational, meeting certain deadlines, not necessarily in terms of publication but in terms of actually conducting the research. Would that be something that the granting agencies could be looking into?

• (1250)

Dr. Ben Cecil: That would be a reasoned approach, yes.

Hon. Michelle Rempel Garner: Conversely, sometimes a lot of big institutions will get these grants and then not deliver anyway. Is stage-gating something the federal government should be looking at where there have been instances of, in their research funding review, allegations of misappropriation or significant changes to a research project's staffing levels?

Dr. Ben Cecil: I think that would be part of the government's due diligence on any re-evaluation, to ensure that the public stakeholder is well represented and their funds are being supported properly.

The Chair: Thank you.

We go now to Ms. Bradford for five minutes, please.

Ms. Valerie Bradford (Kitchener South—Hespeler, Lib.): Thank you, Mr. Chair.

Thank you to both of our witnesses today. It's fascinating testimony.

I'll be sharing my time with MP Turnbull.

Dr. Murphy, prior to your current role you were the dean of the Ted Rogers School of Management at Toronto Metropolitan University. Now, of course, you're the president and vice-chancellor of Ontario Tech University.

Would you mind explaining to us what differences you've noticed, or how they affect applying for research and being favoured with research funding based on whether you're in a large city or a smaller community and the size of the educational institution?

Dr. Steven Murphy: I would say that my experience in three Ontario universities has been that it's less about being in a major city than it is the track record of that institution in terms of grants. The people who sit on granting agencies and review grants—as I have—are successful researchers. They have typically come from U15 schools traditionally. That expanded out to include more and more institutions as they became successful.

As you saw Toronto Metropolitan University—formerly Ryerson—become a university and come into its own, it won win more and more grants in time. I'm seeing the same thing at Ontario Tech. You have to prove yourself, establish yourself in larger partnerships, and then lead those partnerships, etc.

It's a long process to get to the top. It's not always the most efficient process. It's not always, to speak to Michelle Rempel Garner's question, based on the merits of who can do the work the most effectively as much as it is who's traditionally done the work.

It is really important to note that each university has its own niches it excels in. In my view, it's to be able to target those areas where it indeed can perform to its highest capacity.

Ms. Valerie Bradford: Thank you for that.

I am really interested in the wind tunnel. If this committee had obtained permission to travel and see some of these things, it would have been on my list. Unfortunately, we didn't get to travel.

Could you explain the ACE fluid mechanics lab? You alluded in your opening statement to how much of your funding comes from the private sector as opposed to the public sector. I think that is increasingly important. Could you describe that facility and explain how it's funded? I expect a lot of the auto companies, etc., might have been involved in creating and utilizing it. How does that work?

Dr. Steven Murphy: Absolutely.

Our ACE wind tunnel facility is one of a kind in the world. It is both geothermal and aerodynamic. This is the place where Silicon Valley and the rest of the world come to test their electric vehicles, their autonomous vehicles and everything from bicycles through to the Canadian ski team. This is as applied as research gets. This is where we see engineering colliding with human factors. Again, we have heard a lot of things that are outdated nomers in the testimony. Universities are as applied today as colleges are.

We are doing work that's at the cutting edge of where electric vehicles are going. One of the big issues with electric vehicles is noise. You take out the noise from an engine that we're all used to hearing. When you get an electric vehicle, the wind noise seems incredibly loud. One of the areas that we've been working with manufacturers hand in glove in, with our students and researchers all involved, is how you reduce wind noise in EVs to make it more comfortable in the cabin and for it to be less noisy in there. It's actually a very big issue when it comes to a buy decision.

We're also working on autonomous vehicles—

• (1255)

The Chair: We're going to have to cut it short.

I'm sorry, Mr. Turnbull, that we weren't able to get over to you.

We will go to Mr. Blanchette-Joncas for two and a half minutes.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank you very much, Mr. Chair.

I want to return to today's topic of study, which is the concentration of research funding in Canada.

Mr. Cecil, I'll continue with you.

Would a rebalancing of research funding require us to stop making distinctions, particularly between colleges, CEGEPs, college technology transfer centres, as they are known in Quebec, or technology access centres in the rest of Canada, by comparing them to universities in terms of granting scholarships for certain programs where applied research is important, and by focusing more on the benefits for small and medium-sized businesses, and the local economy in particular?

[*English*]

Dr. Ben Cecil: I would agree entirely with that statement.

Levelling the playing field creates equity for the entire ecosystem. When we take a look at our stakeholders, that is the Canadian population. They're looking to all of us, as elected officials and officials inside the government's agencies, to be good stewards of the public purse and to ensure that the results we come up with on their behalf suit their needs.

Levelling the playing field between CEGEPs, colleges and universities, and creating eligibility and equity across a system so that we take an ecosystem approach, will benefit Canadians immensely.

To be bold, I believe this committee has an opportunity to make a generational impact on Canada's ability to compete at a global level by taking a very focused look at reimagining the federal funding ecosystem around research. If we were to become a global powerhouse of applied research—that is, research with impacts in terms of electric vehicles, as my esteemed colleague has said, or new forms of feeding the world—this would change the perception of Canadian research on a global level. This would have an impact for the entire 21st century.

The Chair: Thank you.

It's great to have that type of vision in the room today.

Mr. Cannings, you have two and a half minutes.

Mr. Richard Cannings: Thank you.

Dr. Murphy, do you have any comments or answers with regard to the question I asked Dr. Cecil earlier? Would it be useful to have a different funding model for institutes of technology or colleges doing applied research with companies to be more nimble on a time basis and to access grant funds more quickly?

Would that fit with the problem at hand?

Dr. Steven Murphy: I certainly welcome any model.

I understand that we have an innovation ecosystem. I think colleges have traditionally been underutilized in that ecosystem, considering what they bring to the table in terms of industry contacts and their ability to do applied research.

We certainly live in a model where universities work with colleges and employers daily to bring in whichever partner has the capacity to do so. I think a funding mechanism that enables dynamic partnerships, where we're pulling the very best out of each of our institutions in service of the country and in service of moving IP forward into industry, would advance all of our causes.

• (1300)

Mr. Richard Cannings: Thank you.

The Chair: I'm also a graduate of Red River College. We had a very strong tie with the business communities and that's still the case. It's great to have that kind of vision in the room, as I said.

Thank you both for your testimonies and for your thoughts on this study of distribution of federal government funding among Canada's post-secondary institutions. If there is additional information that we didn't get to, please submit it to the clerk.

Before we close, I remind colleagues that we have the study on Canada's Arctic in relation to climate change coming up. We need witness lists submitted by next Monday, April 22. If you can get those over to the clerk that would help him do his job.

Are we adjourned?.

Some hon. members: Agreed.

The Chair: Thank you very much.

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